PAGE:

RAW SEQUENCE LISTING PATENT APPLICATION US/09/099,307A DATE: 01/05/2000

TIME: 15:13:12

Input Set: 1099307A.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

ENTERED

```
1
     <110> APPLICANT: ERTL, JOHANN
           HABERMANN, PAUL
           GEISEN, KARL
 3
 4
           SEIPKE, GERHARD
 5
     <120> TITLE OF INVENTION: NOVEL INSULIN DERIVATIVES HAVING A RAPID ONSET OF ACTION
     <130> FILE REFERENCE: 02481.1597-00000
 7
     <140> CURRENT APPLICATION NUMBER: US/09/099,307A
     <141> CURRENT FILING DATE: 1998-06-18
 9
     <150> EARLIER APPLICATION NUMBER: 19726167.1
     <151> EARLIER FILING DATE: 1997-06-20
10
11
     <160> NUMBER OF SEQ ID NOS: 20
     <170> SOFTWARE: PatentIn Ver. 2.0
12
     <210> SEQ ID NO 1
     <211> LENGTH: 21
14
     <212> TYPE: PRT
     <213> ORGANISM: Homo sapiens
17
     <400> SEOUENCE: 1
           Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu
18
19
                                                 10
20
           Glu Asn Tyr Cys Asn
21
                        20
22
     <210> SEQ ID NO 2
23
     <211> LENGTH: 30
     <212> TYPE: PRT
     <213> ORGANISM: Homo sapiens
     <400> SEQUENCE: 2
           Phe Val Asn Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
27
29
           Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Lys Thr
30
31
     <210> SEQ ID NO 3
    <211> LENGTH: 30
     <212> TYPE: PRT
33
     <213> ORGANISM: Homo sapiens
     <400> SEQUENCE: 3
           Phe Val Lys Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
37
           Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Pro Glu Thr
38
39
                                            25
   <210> SEQ ID NO 4
40
41
     <211> LENGTH: 30
42
    <212> TYPE: PRT
43
     <213> ORGANISM: Homo sapiens
44
     <400> SEQUENCE: 4
```

PAGE: 2 RAW SEQUENCE LISTING DATE: 01/05/2000

PATENT APPLICATION US/09/099,307A TIME: 15:13:12

Input Set: I099307A.RAW

```
Phe Val Lys Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
46
                                                 10
47
           Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Ile Lys Thr
                                             25
48
     <210> SEO ID NO 5
49
50
     <211> LENGTH: 30
     <212> TYPE: PRT
51
52
     <213> ORGANISM: Homo sapiens
53
     <400> SEQUENCE: 5
           Phe Val Lys Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
55
           Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Ile Pro Lys Thr
57
                                             25
     <210> SEQ ID NO 6
     <211> LENGTH: 97
59
60
     <212> TYPE: PRT
61
     <213> ORGANISM: Homo sapiens
     <400> SEQUENCE: 6
63
           Met Ala Thr Thr Ser Thr Gly Asn Ser Ala Arg Phe Val Lys Gln His
64
           Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu
65
66
                                             25
           Arg Gly Phe Phe Tyr Thr Pro Glu Thr Arg Arg Glu Ala Glu Asp Pro
67
68
                                         40
           Gln Val Gly Gln Val Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu
69
70
71
           Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys Arg Gly Ile Val Glu
72
                                 70
73
           Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys
74
                             85
                                                 90
75
           Asn
76
     <210> SEQ ID NO 7
77
     <211> LENGTH: 97
78
     <212> TYPE: PRT
79
     <213> ORGANISM: Homo sapiens
     <400> SEQUENCE: 7
80
           Met Ala Thr Thr Ser Thr Gly Asn Ser Ala Arg Phe Val Lys Gln His
81
82
83
           Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu
84
           Arg Gly Phe Phe Tyr Thr Ile Lys Thr Arg Arg Glu Ala Glu Asp Pro
85
86
87
           Gln Val Gly Gln Val Glu Leu Gly Gly Pro Gly Ala Gly Ser Leu
88
89
           Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys Arg Gly Ile Val Glu
90
           Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys
91
92
93
           Asn
```

<210> SEQ ID NO 8

PAGE: 3 RAW SEQUENCE LISTING DATE: 01/05/2000

PATENT APPLICATION US/09/099,307A TIME: 15:13:12

Input Set: 1099307A.RAW

```
95
      <211> LENGTH: 97
      <212> TYPE: PRT
 96
 97
      <213> ORGANISM: Homo sapiens
      <400> SEQUENCE: 8
 98
            Met Ala Thr Thr Ser Thr Gly Asn Ser Ala Arg Phe Val Lys Gln His
 99
100
                                                  10
            Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu
101
102
                                              25
103
            Arg Gly Phe Phe Tyr Ile Pro Lys Thr Arg Arg Glu Ala Glu Asp Pro
104
                                          40
            Gln Val Gly Gln Val Glu Leu Gly Gly Pro Gly Ala Gly Ser Leu
105
106
            Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys Arg Gly Ile Val Glu
107
108
            Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys
109
110
111
            Asn
112
      <210> SEO ID NO 9
113
      <211> LENGTH: 21
114
      <212> TYPE: PRT
115
      <213> ORGANISM: Homo sapiens
      <400> SEQUENCE: 9
116
            Gly Ile Val Glu Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu
117
118
                                                  10
119
            Glu Asn Tyr Cys Asp
120
                          20
121
      <210> SEQ ID NO 10
      <211> LENGTH: 30
122
      <212> TYPE: PRT
      <213> ORGANISM: Homo sapiens
124
125
      <400> SEQUENCE: 10
            Phe Val Lys Gln His Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr
126
127
128
            Leu Val Cys Gly Glu Arg Gly Phe Phe Tyr Thr Ile Lys Thr
129
                                              25
130
      <210> SEQ ID NO 11
      <211> LENGTH: 97
131
132
      <212> TYPE: PRT
133
      <213> ORGANISM: Homo sapiens
      <400> SEQUENCE: 11
            Met Ala Thr Thr Ser Thr Gly Asn Ser Ala Arg Phe Val Lys Gln His
135
136
            Leu Cys Gly Ser His Leu Val Glu Ala Leu Tyr Leu Val Cys Gly Glu
137
138
                                              25
139
            Arg Gly Phe Phe Tyr Thr Ile Lys Thr Arg Arg Glu Ala Glu Asp Pro
140
                                          40
141
            Gln Val Gly Gln Val Glu Leu Gly Gly Gly Pro Gly Ala Gly Ser Leu
142
143
            Gln Pro Leu Ala Leu Glu Gly Ser Leu Gln Lys Arg Gly Ile Val Glu
144
             65
                                  70
                                                      75
                                                                           80
```

DATE: 01/05/2000 TIME: 15:13:12 RAW SEQUENCE LISTING PAGE: 4

PATENT APPLICATION US/09/099,307A

Input Set: 1099307A.RAW

145		Gln Cys Cys Thr Ser Ile Cys Ser Leu Tyr Gln Leu Glu Asn Tyr Cys	
146		85 90 95	
147		Asp	
148	<210>	SEQ ID NO 12	
149	<211>	LENGTH: 18	
150	<212>	TYPE: DNA	
151	<213>	ORGANISM: Homo sapiens	
152	<400>	SEQUENCE: 12	
153		tttgtgaagc agcacctg	18
154	<210>	SEQ ID NO 13	
155	<211>	LENGTH: 18	
156	<212>	TYPE: DNA	
157	<213>	ORGANISM: Homo sapiens	
158		SEQUENCE: 13	
159		caggtgctgc ttcacaaa	18
160	<210>	SEQ ID NO 14	
161		LENGTH: 28	
162		TYPE: DNA	
163		ORGANISM: Homo sapiens	
164		SEQUENCE: 14	
165	(100)	ttctacacac ccgagacccg cggcatcg	28
166	c210s	SEQ ID NO 15	
167		LENGTH: 29	
168		TYPE: DNA	
169		ORGANISM: Homo sapiens	
170		SEQUENCE: 15	
171	<400>		29
	-210-	gccgcgggtc tcgggtgtgt agaagaagc	23
172		SEQ ID NO 16	
173		LENGTH: 23	
174		TYPE: DNA	
175		ORGANISM: Homo sapiens	
176	<400>	SEQUENCE: 16	0.3
177	010	ttctacatcc ccaagacccg ccg	23
178		SEQ ID NO 17	
179		LENGTH: 24	
180		TYPE: DNA	
181		ORGANISM: Homo sapiens	
182	<400>	SEQUENCE: 17	
183		cttggggatg tagaagaagc ctcg	24
184		SEQ ID NO 18	
185		LENGTH: 24	
186		TYPE: DNA	
187		ORGANISM: Homo sapiens	
188	<400>	SEQUENCE: 18	
189		tacacaatca agacccgccg ggag	24
190		SEQ ID NO 19	
191		LENGTH: 27	
192		TYPE: DNA	
193		ORGANISM: Homo sapiens	
194	<400>	SEQUENCE: 19	

PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/099,307A

Input Set: 1099307A.RAW

195		ggtcttgatt gtgtagaaga agcctcg	27
196	<210>	SEQ ID NO 20	
197	<211>	LENGTH: 39	
198	<212>	TYPE: DNA	
199	<213>	ORGANISM: Homo sapiens	
200	<400>	SEQUENCE: 20	
201		ttttttgtcg actattagtc gcagtagttc taccagctg	39

PAGE: 6

VERIFICATION SUMMARY
PATENT APPLICATION US/09/099,307A

DATE: 01/05/2000

TIME: 15:13:12

Input Set: 1099307A.RAW

Line ? Error/Warning

Original Text